

Birds of Lake Nongra and surrounding bushland, Northern Territory

Martin Gole

8 Landor Road, Gooseberry Hill, WA 6076. Email: mgole@westnet.net.au

Lake Nongra is a large freshwater lake situated in the southern-most part of the pastoral country on the northern margin of the Tanami Desert in the Northern Territory. The lake is located at the northern edge of range for many arid zone birds and at the southern edge of range for many sub-tropical zone birds. The area is rarely visited and it appears that the last comprehensive bird survey of the lake was undertaken in 1993, when 29 waterbird species were recorded (Jaensch 1994). The birds reported here were recorded during eight surveys conducted over a 23-day period during October-November 2002. In addition, a brief survey was undertaken in June 2002 when water levels were about 1 m higher than in October-November. I observed 17 waterbirds not previously recorded, did not record 5 seen previously and also recorded 54 bushbirds around the lake foreshore.

The lake, when full, is shallow with a maximum depth of 1.5–2 m. It was last dry about 10 years ago and is currently only 0.3 m deep and very restricted in areal extent (T. Westerway, Inverway Station, pers. comm., Sept. 2005). It is filled by summer rains. During the October-November surveys the lake was less than at full capacity (Figure 1), being at its widest points 9 km north-south and 5–6 km east-west and was dominated by open water. In places patches of thick, dead bushes, 2–4 m high, extended 100–200 m into the lake. These occur particularly in the north-west but also along parts of the north-eastern and eastern shoreline and along creek inlets into the lake. The lake margin, 50–500 m wide, is flat and during the survey period was covered by short, ephemeral grasses and herbs except for 2–30 m wide mudflats exposed along the edge of the lake and along some creek channels. The surrounding bush is dominated by open eucalypt and acacia woodland with an understory of grass although along creek lines the vegetation is more complex and relatively dense.

The lake straddles the boundary of Inverway and Birrindudu pastoral leases. On Inverway the lake is fenced off from cattle, however on Birrindudu the paddock containing the lake is used as a drought refuge and is usually not grazed except by stray cattle. Few recent cattle tracks were seen along the shoreline. However, due to dry conditions there were plans to re-introduce cattle into this paddock. Several camels were seen drinking from the lake during the October-November surveys.

The eight surveys were each of 1.5–2.5 hour duration and covered an area of about 500 m radius with the centre point taken on the edge of the lake except for the southern-most site which was along a creek line (Figure 1). Large parts of the lake

were not surveyed. In addition, the thickets of dead bushes present in places around the lake prevented the observation of probably many hundreds of waterbirds sheltering from windy conditions that prevailed during many of the surveys. Leica x10 binoculars were used for observations, so for the smaller waterbirds only those relatively close to the shore could be identified. In June most of the many hundreds of waterbirds seen at the single site visited were well off-shore and were not identified. Because of its incomplete nature only one species from this survey (Blue-billed Duck), not seen in the later surveys, is included in Table 1. During the October-November surveys most waterbirds were sheltering close to the shore from the windy conditions and a high proportion of birds observed within each survey area were identified.

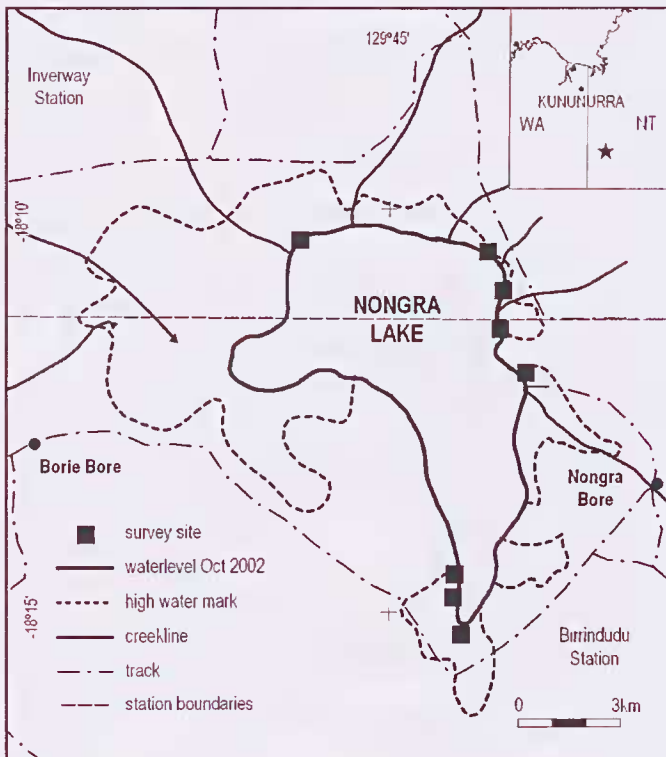


Figure 1. Location of survey sites around the margin of Lake Nongra undertaken in October-November 2002. The heavy outline of the lake is its approximate position in October 2002 whereas the dotted line is the lake outline as shown on the 1:100 000 scale topographic map.

Table 1. Birds seen at Lake Nongra between 14/10/02 and 5/11/02.

Bird Species	Number of surveys (n = 8)
Maggie Goose <i>Anseranas semipalmata</i>	1
Blue-billed Duck <i>Oxyura australis</i>	1
Freckled Duck <i>Stictonetta naevosa</i>	3
Black Swan <i>Cygnus atratus</i>	3
Australian Wood Duck <i>Chenonetta jubata</i>	1
Pacific Black Duck <i>Anas superciliosa</i>	7
Grey Teal <i>Anas gracilis</i>	8
Pink-eared Duck <i>Malacorhynchus membranaceus</i>	7
Hardhead <i>Aythya australis</i>	8
Australasian Grebe <i>Tachybaptus novaehollandiae</i>	1
Great Crested Grebe <i>Podiceps cristatus</i>	3
Darter <i>Anhinga melanogaster</i>	7
Little Pied Cormorant <i>Phalacrocorax melanoleucos</i>	3
Little Black Cormorant <i>Phalacrocorax sulcirostris</i>	6
Australian Pelican <i>Pelecanus conspicillatus</i>	8
White-faced Heron <i>Egretta novaehollandiae</i>	3
Little Egret <i>Egretta garzetta</i>	4
White-necked Heron <i>Ardea pacifica</i>	2
Great Egret <i>Ardea alba</i>	7
Glossy Ibis <i>Plegadis falcinellus</i>	8
Straw-necked Ibis <i>Threskiornis spinicollis</i>	3
Royal Spoonbill <i>Platalea regia</i>	5
Yellow-billed Spoonbill <i>Platalea flavipes</i>	5
Black-shouldered Kite <i>Elanus axillaris</i>	1
Whistling Kite <i>Haliastur sphenurus</i>	5
Spotted Harrier <i>Circus assimilis</i>	1
Swamp Harrier <i>Circus approximans</i>	1
Brown Goshawk <i>Accipiter fasciatus</i>	1
Collared Sparrowhawk <i>Accipiter cirrhocephalus</i>	1
Wedge-tailed Eagle <i>Aquila audax</i>	2
Brown Falcon <i>Falco berigora</i>	2
Australian Hobby <i>Falco longipennis</i>	2
Nankeen Kestrel <i>Falco cenchroides</i>	2
Brolga <i>Grus rubicunda</i>	4
Purple Swampphen <i>Porphyrio porphyrio</i>	1
Black-tailed Native-hen <i>Gallinula ventralis</i>	4
Eurasian Coot <i>Fulica atra</i>	4
Australian Bustard <i>Ardeotis australis</i>	2
Marsh Sandpiper <i>Tringa stagnatilis</i>	3
Common Greenshank <i>Tringa nebularia</i>	5
Wood Sandpiper <i>Tringa glareola</i>	1
Common Sandpiper <i>Actitis hypoleucos</i>	2
Black-winged Stilt <i>Himantopus himantopus</i>	8
Red-capped Plover <i>Charadrius ruficapillus</i>	2
Oriental Plover <i>Charadrius veredus</i>	1
Black-fronted Dotterel <i>Elseyaornis melanops</i>	4
Red-kneed Dotterel <i>Erythronyx cinctus</i>	7

Bird Species	Number of surveys (n = 8)
Masked Lapwing <i>Vanellus miles</i>	5
Gull-billed Tern <i>Sterna nilotica</i>	7
Caspian Tern <i>Sterna caspia</i>	2
Whiskered Tern <i>Chlidonias hybridus</i>	7
Crested Pigeon <i>Ocyphaps lophotes</i>	4
Peaceful Dove <i>Geopelia striata</i>	2
Red-tailed Black-Cockatoo <i>Calyptorhynchus banksii</i>	4
Galah <i>Cacatua roseicapilla</i>	1
Little Corella <i>Cacatua sanguinea</i>	3
Australian Ringneck <i>Barnardius zonarius</i>	2
Budgerigar <i>Melopsittacus undulatus</i>	1
Pallid Cuckoo <i>Cuculus pallidus</i>	1
Pheasant Coucal <i>Centropus phasianinus</i>	1
Tawny Frogmouth <i>Podargus strigoides</i>	1
Sacred Kingfisher <i>Todiramphus sanctus</i>	2
Rainbow Bee-eater <i>Merops ornatus</i>	2
Red-backed Fairy-wren <i>Malurus melanocephalus</i>	4
Striated Pardalote <i>Pardalotus striatus</i>	1
Weebill <i>Smicromis brevirostris</i>	4
Spiny-cheeked Honeyeater <i>Acanthagenys rufogularis</i>	1
Little Friarbird <i>Philemon citreogularis</i>	4
Yellow-throated Miner <i>Manorina flavigula</i>	5
Singing Honeyeater <i>Lichenostomus virescens</i>	4
Grey-fronted Honeyeater <i>Lichenostomus plumulus</i>	4
Yellow-tinted Honeyeater <i>Lichenostomus flavescens</i>	2
Brown Honeyeater <i>Lichmera indistincta</i>	4
Rufous-throated Honeyeater <i>Conopophila rufogularis</i>	4
Jacky Winter <i>Microeca fascians</i>	4
Grey-crowned Babbler <i>Pomatostomus temporalis</i>	2
Rufous Whistler <i>Pachycephala rufiventris</i>	5
Grey Shrike-thrush <i>Colluricincla harmonica</i>	1
Restless Flycatcher <i>Mylagra inquieta</i>	5
Maggie-lark <i>Grallina cyanoleuca</i>	8
Willie Wagtail <i>Rhipidura leucophrys</i>	7
Black-faced Cuckoo-shrike <i>Coracina novaehollandiae</i>	6
White-winged Triller <i>Lalage sueurii</i>	7
White-breasted Woodswallow <i>Artamus leucorhynchus</i>	8
Black-faced Woodswallow <i>Artamus cinereus</i>	8
Little Woodswallow <i>Artamus minor</i>	1
Pied Butcherbird <i>Cracticus nigrogularis</i>	7
Australian Magpie <i>Gymnorhina tibicen</i>	1
Torresian Crow <i>Corvus orru</i>	3
Singing Bushlark <i>Mirafrja javanica</i>	1
Richard's Pipit <i>Anthus novaeseelandiae</i>	4
Zebra Finch <i>Taeniopygia guttata</i>	3
Tree Martin <i>Hirundo nigricans</i>	1
Fairy Martin <i>Hirundo ariel</i>	7
Rufous Songlark <i>Cincloramphus mathewsi</i>	1

All 41 waterbirds and 54 bushbird species observed are listed in Table 1. Taxonomic order and nomenclature follow Christidis and Boles (1994).

Waterbirds

The most common species seen were Grey Teal and Hardhead with estimated numbers of >100 to >1000 in most surveyed areas. Pacific Black Duck was also common with numbers of 50 to >500 per site. Black Swan, Pink-eared Duck, Darter, Australian Pelican, Royal Spoonbill and Yellow-billed Spoonbill all occurred in similar numbers of 10-20 at most sites. Moderate numbers (75 to >150) of Eurasian Coot occurred in four of the northern sites. Freckled Duck were seen only in the three most northerly sites in low numbers (10-20). Freckled Duck are regularly reported from Lake Gregory, 330 km southwest of Lake Nongra and situated in a similar arid to sub-tropical transition zone (Halse *et al.* 1998). They also occur at Lake Woods, 400 km to the east. They are, however, rarely reported from elsewhere in the northern part of Australia (Marchant & Higgins 1990, Barrett *et al.* 2003).

Red-kneed Dotterel was the most common wader and along with Black-winged Stilt occurred in numbers of 10 to >30 in all except one site. Other waterbirds present at most survey sites were Glossy Ibis (2-3 birds per site), Great Egret (0-5), Little Black Cormorant (0-10), Whiskered Tern (0-15), Gull-billed Tern (0-3), Common Greenshank (0-5), and Black-tailed Native-hen (10-30). All other waterbirds were present as single birds or small numbers at one or two sites (Table 1).

Of particular interest is the presence of male and female Blue-billed Ducks on 27 June 2002 in the north-east of the lake with the male in breeding plumage. Blue-billed Duck is rarely recorded in the arid interior and the Top End of Australia. None have been reported from Lake Gregory (Halse *et al.* 1998). Marchant and Higgins (1990) report only one Northern Territory record and the nearest records in Barrett *et al.* (2003) are at Alice Springs and Glen Helen Gorge in central Australia.

The record for Magpie Goose extends its known southern distribution in this part of the Northern Territory although they have been recorded from just across the border in Western Australia (Barrett *et al.* 2003) and also occur at Lake Gregory (Halse *et al.* 1998). The presence of Great Crested Grebe and Purple Swamphen at Lake Nongra adds an additional locality to their sparse distribution in the Northern Territory and arid northern Western Australia (Marchant & Higgins 1990, 1993, Barrett *et al.* 2003). The other waterbirds recorded have widespread distributions and their presence at Lake Nongra is not unexpected.

The only birds observed breeding were a pair of Masked Lapwing (2 eggs).

Waterbirds not recorded by me but reported by Jaensch (1994) are Plumed Whistling-Duck, Nankeen Night Heron, Australian White Ibis, Baillon's Crake, and Clamorous Reed-Warbler. The latter two species were seen in the north-west part of the lake, an area not visited by me.

The total number of waterbirds recorded by Jaensch (1994) was 1880. It is not possible from my observations to estimate waterbird numbers for the whole lake, however it is clear that there were many more birds present than during the 1993 survey. During the first of the southern October–November 2002 surveys there were about 2000 waterbirds in the southernmost ~1.0 km of the lake. Many additional birds are likely to have been present elsewhere in the lake, particularly in the north-west part where several major creeks enter and where trees appear to extend well into the lake.

The apparently low numbers of waterbirds recorded by Jaensch (1994) at Lake Nongra in early-mid 1993 corresponds to the lowest numbers recorded at Lake Gregory in the period 1988 to 1995 (4376 in 1993 compared to 44 141–650 000 in seven other surveys, Halse *et al.* 1998). This was a wet year and birds were likely to have been widely dispersed. This suggests that higher numbers than recorded by Jaensch (1994) might normally be expected at Lake Nongra, at least when the lake is not dry.

Bushbirds

Most bushbirds recorded around the lake margins have widespread distributions. However, Red-tailed Black-Cockatoo (subspecies *macrorhynchus*), Little Friarbird, Yellow-tinted Honeyeater and Rufous-throated Honeyeater are at or close to the known inland edge of their range. The lake also marks the approximate southern boundary for Grey-fronted Honeyeater, Jacky Winter and Restless Flycatcher which do not extend into the Tanami Desert, although these birds also occupy more southerly regions elsewhere. Lake Nongra is close to the known northern limit for Spiny-cheeked Honeyeater at this longitude (Blakers *et al.* 1984, Barrett *et al.* 2003).

Lake Nongra is a large isolated wetland within a semi-arid terrain and probably has regional significance for waterbirds. The apparently high numbers of waterbirds present in 2002 compared to 1993 may reflect the use of the lake as a drought refuge given the very dry conditions experienced in the area during 2001–2002. Seventy-three waterbirds have been recorded from Lake Gregory, a similarly situated and regionally significant wetland, so future surveys at Lake Nongra are likely to record many additional species.

References

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Although common in coastal areas of the Northern Territory, the Magpie Goose *Anseranas semipalmata* is infrequently seen as far inland as Lake Nongra. (Martin Armstrong)